

Title (en)  
KNEE BRACE HINGE

Publication  
**EP 0139689 B1 19891213 (EN)**

Application  
**EP 84901294 A 19840302**

Priority  
US 47322983 A 19830308

Abstract (en)  
[origin: WO8403433A1] An improved knee brace hinge, per se, and as a part of external bracing apparatus for controlling the degree of motion permitted by a wearer's knee and including first (13) and second (15) pairs of elongate relatively stiff braces that resist torsion and bending loads and adapted to lie on opposite sides of the wearer's thigh and calf; harness, with or without flexible sheets, for adjustably placing and holding the respective pairs of elongate braces in a desired obtained position on respective opposite sides of the thigh and calf of the wearer's knee. The improved hinge is connected with the central ends (21, 23) of the respective braces on each side of the wearer's knee and each hinge employs a single cam-slot operator for simulating flexural motion of a wearer's knee and a positive lock for limiting the range of the flexural motion. The hinge has a shaft (31) contained in a mating aperture (33) and slideably contained within a slot (35) for allowing the flexural motion simulating that of the wearer's knee. Specific preferred structural embodiments of the improved knee brace hinge are disclosed, including flexible plungers for limiting the movement of the cam in the slot together with indicators and respective indices for accurately presetting the movement desired to be allowed.

IPC 1-7  
**A61F 5/01**

IPC 8 full level  
**A61F 5/01** (2006.01); **A61F 5/04** (2006.01)

CPC (source: EP US)  
**A61F 5/0123** (2013.01 - EP US); **A61F 2005/0167** (2013.01 - EP US)

Cited by  
US10524948B2

Designated contracting state (EPC)  
DE FR GB NL SE

DOCDB simple family (publication)  
**WO 8403433 A1 19840913**; AU 2694184 A 19840928; CA 1214700 A 19861202; DE 3480687 D1 19900118; EP 0139689 A1 19850508; EP 0139689 A4 19861126; EP 0139689 B1 19891213; JP H06139 B2 19940105; JP S60500847 A 19850606; US 4489718 A 19841225

DOCDB simple family (application)  
**US 8400336 W 19840302**; AU 2694184 A 19840302; CA 449024 A 19840307; DE 3480687 T 19840302; EP 84901294 A 19840302; JP 50123384 A 19840302; US 47322983 A 19830308